HW#12: Points, Lines, and Planes

Geometry

Due Date: Tuesday, September 16th, 2014

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP: \_\_\_\_\_\_\_

**Failure to show work and write in complete sentences will result in a LaSalle.**

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| 1. Define “collinear” and ***sketch an example*** of collinear points. | 2. Define “coplanar” and ***sketch an example*** of coplanar points. |
| 3. What is the different between a ray and a line? | 4. Write the necessary notation above “AB” to demonstrate that (a.) is a line, (b.) is a line segment, and (c.) is a ray.  (a.) AB (b.) AB (c.) AB |
| 5. Use the diagram to decide whether the given statement is *true* or *false*.   1. Points E, G, and F are collinear. \_\_\_\_\_\_\_\_\_\_ 2. Points E, G, and F are coplanar. \_\_\_\_\_\_\_\_\_\_ 3. Points *H*, *I*, and *G* are collinear. \_\_\_\_\_\_\_\_\_\_ 4. Points *H*, *I*, and *J* are coplanar. \_\_\_\_\_\_\_\_\_\_ |  |
| Description: http://image.tutorvista.com/Qimages/QD/39197.gif  6. Name at least 3 sets of 3 points in the figure above that are collinear.   1. \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ 2. \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ 3. \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ | Description: http://image.tutorvista.com/Qimages/QD/50234.gif  7. Name at least 3 sets of 3 points in the figure above that are coplanar.   1. \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ 2. \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ 3. \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ |
| 8) Determine the slope of the line below: \_\_\_\_\_ | 9a) Determine the slope of the line below: \_\_\_\_    b) What is the y-intercept? \_\_\_\_ |
| 10) Sketch a line with the given slope:  a) Zero  *What is this kind of line called: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*  b) Undefined  *What is this kind of line called: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* | 11) Use the graph below to answer the questions that follow.    a) How many lines have a positive slope? \_\_\_\_\_  b) How many lines have a negative slope? \_\_\_\_\_  c) How many lines have an undefined slope? \_\_\_\_\_  d) How many lines have a slope of zero? \_\_\_\_\_ |
| 13) **Error Analysis.** Cindy looked at the graph below and stated that the slope was . *Explain* what mistake she made and *correct* her by providing the accurate slope of the line. | |
| 14) **Explain.** In 2 sentences, explain which line has the steepest slope by analyzing the equations of the lines below.  Line a: y = 2x – 4  Line b: y = x + 2 | |